

**RECORD OF DECISION**

**Amendment  
of the  
Land and Resource Management Plan  
and  
Final Supplement to the  
Environmental Impact Statement**

**GRAND MESA, UNCOMPAHGRE, AND GUNNISON  
NATIONAL FORESTS**

**Delta, Montrose, Ouray, San Miguel,  
Mesa, Hinsdale, Saquache and Gunnison Counties**

**USDA FOREST SERVICE**

**September 1991**

## I. INTRODUCTION

This Record of Decision (ROD) explains the rationale and basis for my decision to approve Amendment Number 6 to the Grand Mesa, Uncompahgre, and Gunnison National Forests Land and Resource Management Plan (LRMP). My decision will:

Establish a new Allowable Sale Quantity and increase the number of acres designated as suited for timber production.

Provide additional management goals, standards and guidelines for old growth, snags, aspen management, visual resource management, riparian and aquatic habitat, and wildlife habitat.

Correct errors in the original Management Area maps and the corresponding acreage figures

Revise the Monitoring Plan.

In Section II of this ROD, the issues identified during the Amendment process are briefly described. Section III provides a detailed description of the decisions summarized above and discusses the implications these decisions have on management of the Forest. Section IV describes the factors that affected each decision and why the Amended Plan maximizes net public benefits. Section V contains responses to the USDA Secretary's decision to remand the original Forest Plan. Section VI describes the decision process including descriptions of the alternatives considered. Section VII includes a discussion on implementation and monitoring of the Amended Forest Plan.

I am making this decision with full knowledge and consideration of the estimated environmental, social, and economic consequences of the alternatives developed to address the issues.

The Forest Supervisor determined, as directed in 36 Code of Federal Regulations (CFR) Part 219 10(f), that the amendment is a significant change to the original Forest Plan. The Supervisor's significance determination is based on considerations of the National Forest Management Act of 1976, the National Environmental Policy Act of 1969, the implementing regulations for these laws (36 CFR 219 and 40 CFR 1500-1508), and further policy as directed in Forest Service Manuals and Handbooks.

The significance of the Amendment required the preparation of a Draft and Final Supplement to the Environmental Impact Statement (DSEIS and FSEIS) for the original Forest Plan. Forest Service policy requires that significant Forest Plan amendments are approved by the Regional Forester.

The original Environmental Impact Statement (EIS) is not superseded, but is supplemented by the FSEIS to disclose the environmental effects of the new alternatives evaluated for this Amendment. The Amended Forest Plan, including the maps, replace the original Forest Plan in its entirety.

### *Background*

The original Forest Plan was approved in a ROD on September 29, 1983 (FSEIS, p. C-2). An EIS was developed for the Forest Plan following the requirements of the National Environmental Policy Act of 1969 (NEPA). The original EIS and ROD noted that there was a possibility that Continental Lumber Company might build a new wood processing plant which could affect the demand for timber from the Forests (page IV-60, FEIS; page 11, ROD). Specifically, the ROD stated,

"A review of the local demand situation will be made prior to the end of 1987 to determine if local demand for timber has significantly changed. If local demand for timber changes significantly this Plan will be re-analyzed as required by NFMA Regulations 36 CFR 219.10(c)."

Although Continental Lumber did not build the new plant, Louisiana-Pacific Company did. A waferboard manufacturing plant built in 1984 utilizes aspen and conifer species. The plant requires aspen fiber from the Forests which exceeds the amount included in the Allowable Sale Quantity (ASQ) in the 1983 Forest Plan.

The 1983 decision to approve the Forest Plan was appealed by several parties under Forest Service appeal regulations (36CFR 211.18). Primary issues in the appeal related to the requirements and process used to identify lands suited for timber production including lands economically unsuited for timber production, and the environmental effects of the timber program (Chief's Appeal #943, September 29, 1983).

In ruling on the appeal, the Chief of the Forest Service remanded the Forest Plan on September 10, 1984, for further documentation of the timber land suitability analysis and the Allowable Sale Quantity (FSEIS, p. C-22). The Secretary of Agriculture chose to review the Chief's decision. The Secretary's decision, signed by Deputy Assistant Secretary Douglas W. MacCleery on July 31, 1985, required additional explanation in the ROD of how the alternative selected for the Plan maximized net public benefits (FSEIS, p. C-41). The Secretary's decision emphasized the role of the ROD in providing an explanation of how the decision was made to approve the Plan.

A review of the Secretary's decision concluded that additional analysis was needed. The Forest Supervisor evaluated other changes which had occurred on the Forest since the Plan was approved, mainly the local demand for National Forest timber. Based on this evaluation, the Forest Supervisor decided that the Plan needed to be changed with a significant amendment. I approved of this action in December 1987.

The Forest published a Notice of Intent to prepare a Supplement to the original EIS for the Forest Plan and to change the Plan through a significant amendment on December 30, 1987 (FSEIS, p. A-5).

A Draft Supplement to the Environmental Impact Statement (DSEIS) and a Proposed Amendment to the Land and Resource Management Plan were issued for public review and comment on May 12, 1989. The public comment period closed on September 25, 1989. The Forest evaluated the public comments, developed responses to the comments, adjusted analytical models, evaluated new alternatives in response to the public comments, and finalized the Supplement to the EIS and Amended Forest Plan.

### **Purpose and Need for the Amendment**

The purpose of Amendment 6 is to update the timber management program for the Forests to reflect changes which have occurred since the Plan was approved in 1983. The ASQ reflects changes in local demand for National Forest timber since the original Plan was approved.

This is not a Forest Plan revision. The Forest Plan for the Grand Mesa, Uncompahgre and Gunnison National Forests is scheduled for revision in 1997.

### **Affected Area**

The Grand Mesa, Uncompahgre and Gunnison National Forests are located in west-central Colorado on the western slope of the Continental Divide in the upper Colorado River drainage. The Forests cover an area of over 3,000,000 acres and vary in elevation from 6,000 feet to over 14,000 feet. Parts of the Forest are located in Delta, Montrose, Ouray, San Miguel, Mesa, Hinsdale, Saquache and Gunnison Counties.

## Types of Decisions made in the Forest Plan

The Chief of the Forest Service clarified the types of decisions made in a Forest Plan in his decision on an appeal of the Flathead National Forest Land and Resource Management Plan (August 31, 1988, Appeals #1467/1513). Based on this policy, the decisions in a Forest Plan may generally be categorized as:

1. Establishment of forest multiple-use goals and objectives, including an identification of the quantities of goods and services that are expected to be produced [36 CFR 219.11 (b)];
2. Establishment of forest-wide management requirements (standards and guidelines) to fulfill requirements of NFMA applying to future activities (resource integration requirements of 36 CFR 219.13, 219.26 and 219.27);
3. Establishment of management area direction (management area prescriptions) applying to future management activities in that management area [36 CFR 219.11(c)];
4. Establishment of allowable timber sale quantity and designation of land that is suitable for timber production (36 CFR 219.14 and 219.16);
5. Monitoring and evaluation requirements (36 CFR 219.11);
6. Project level decisions (irretrievable commitment of resources) if the projects are specifically identified in the ROD and LRMP and the environmental effects of the projects are disclosed for NEPA purposes in the Final Environmental Impact Statement.

The Amended Plan changes decisions made in the original Forest Plan in five areas listed above: goals and objectives, standards and guidelines, suitable lands, the ASQ, and the Monitoring and Evaluation requirements. The Amended Plan does not include decisions on site-specific projects.

## Authority

The National Forest Management Act of 1976 (NFMA) requires development, maintenance, amendment, and revision of land and resource management plans (LRMP) for each unit of the National Forest System. The LRMPs put in place a dynamic management system so that an interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences will be applied to all future actions on the unit [16 U.S.C. 1604(b), 1604(f), 1604(g), and 1604(i)]. This management system is to assure coordination of the "multiple-uses" and "sustained-yield of products and services" of the National Forest System [16 U.S.C. 1604(e)(1)].

NFMA requires that the Secretary of Agriculture promulgate regulations for the development and maintenance of LRMPs. The Congress also provided that the Secretary of Agriculture appoint a committee of scientists to provide scientific and technical advice on the proposed guidelines.

The planning regulations require:

- (1) Consistency of future decisions with LRMPs [36 CFR 219.10(e) and 219.12(k)];
- (2) Amendment [36 CFR 219.10(f)]; Interim Directive Amendment, and Revision January 13, 1986, (51 Fed. Reg. 1476), reissued February 13, 1987, (52 Fed. Reg. 4632); and

(3) **Revision of LRMPs [36 CFR 219.10(g)].**

Monitoring and evaluation, amendments and revisions help to ensure that LRMPs maintain the dynamic nature required by Congress in NFMA. I am approving Amendment 6 to the Grand Mesa, Uncompahgre and Gunnison National Forests Land and Resource Management Plan under the authority granted to me through the NFMA and the Act's implementing regulations at 36 CFR 219.4(b)(3) and 219.10(f).

## II. THE ISSUES

Following the decisions by the Secretary of Agriculture and the Chief of the Forest Service, the Forest conducted additional public scoping to identify other issues to be addressed during the amendment process. The final set of major issues identified for this Amendment to the Forest's Land and Resource Management Plan are summarized below:

- (1) **Allowable Sale Quantity** - an issue created by the addition of the Louisiana-Pacific waferboard plant into the area which increased demand for aspen species.
- (2) **Aspen management** - an issue related to concerns over the increased demand for the aspen resource from the waferboard plant.
- (3) **Economic dependency and diversity** - an issue focusing on the relationship between the local wood products industry and local communities.
- (4) **Roadless Areas** - an issue raised by the public.
- (5) **Management of Scenic areas** - an issue focused on several specific areas in the Forest.
- (6) **Financial and Economic Efficiency of Timber Management** - an issue raised in the Secretary's decision and by the public (also referred to as the "below-cost" timber sales issue).
- (7) **Timber harvest benefits** - an issue raised in the Secretary's decision and focused on the effects of timber harvesting on other resources.
- (8) **Biodiversity** - an issue raised by the public.
- (9) **Old Growth** - an issue raised by the public.
- (10) **Water Quality** - an issue raised by the public and other government agencies.
- (11) **Recreation Opportunities** - an issue raised by the public.
- (12) **Wildlife Habitat** - an issue raised by the public and other government agencies.
- (13) **Livestock Grazing** - an issue raised by the public.

The issues are discussed in detail in Chapter I and Appendix A of the FSEIS. The issues formed the basis for developing the alternatives analyzed in the FSEIS with the exception of the Timber Harvest Benefits issue (see FSEIS, p. III-1).

### III. DECISIONS

My decision is to approve Amendment 6 to the Grand Mesa, Uncompahgre and Gunnison National Forests (the Forest) Land and Resource Management Plan (the Forest Plan). This is Alternative 1G in the Final Supplemental Environmental Impact Statement (FSEIS).

#### **Establishing a New Allowable Sale Quantity and Changing the Number of Acres Designated as Suited for Timber Production**

I am amending the Allowable Sale Quantity (ASQ) established in the original Forest Plan from 350 million board feet (MMBF) to 388 MMBF for the 10-year period extending from September 1983 to September 1993.

Forest Planning Regulations (36 CFR 219.10(g)) state that forest plans shall ordinarily be revised on a 10-year cycle or at least every 15 years. Allowable Sale Quantity is defined in the Planning Regulations (36 CFR 219.3) as the quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. To facilitate understanding of the ASQ level, I am specifying an ASQ of 271.6 MMBF for the 7-year period extending from September 1991 to September 1998 (See TABLE 1). The Forest Plan will be revised prior to September 1998 and the ASQ will be re-evaluated at that time.

The original Forest Plan ASQ of 350 MMBF was based on a volume of 334 MMBF of conifer during the 10-year period between 1983 and 1993. In the Amended Forest Plan, the conifer portion of the ASQ is 234 million board feet for the same 10-year period. My decision to amend the Forest Plan reduces the conifer component of the ASQ by 100 MMBF.

The original Forest Plan ASQ of 350 MMBF was based on a volume of 16 MMBF of aspen during the 10-year period between 1983 and 1993. In the Amended Forest Plan, the aspen portion of the ASQ is 154 MMBF for the same 10-year period. My decision to approve the Amended Forest Plan increases the aspen component of the ASQ by 138 MMBF.

I am establishing four non-interchangeable components within the Amended Forest Plan's Allowable Sale Quantity (Chief's 1920 letters, January 12, 1987, and June 8, 1987, establishing authority to use non-interchangeable components within the ASQ). The volume designated in one component cannot be substituted for volume from another component, therein, the non-interchangeability. The four non-interchangeable components are:

1. The conifer sawtimber component.
2. The conifer products other than logs (POL) component.
3. The standard aspen component. This component includes aspen volume which is accessible without special cost factors.
4. The special/high cost aspen component. This component includes aspen volume which is not currently accessible and requires significant road construction.

The amount of each component represented in the Amended Forest Plan ASQ and the proportional amount that could be offered for sale from September 1991 through September 1998 are described in TABLE 1.

TABLE 1  
ALLOWABLE SALE QUANTITY  
BY NON-INTERCHANGEABLE COMPONENT  
SEPTEMBER 1991 TO SEPTEMBER 1998

TIMBER COMPONENT	AMENDED ASQ 9/91 TO 9/98 (MMBF)
<i>Conifer</i>	(163.8)
Sawtimber	147.0
POL	16.8
<i>Aspen POL</i>	(107.8)
Standard	103.6
High Cost	4.2
Total	271.6

The conifer sawtimber component of the ASQ, if harvested on an even schedule, will involve about 21 MMBF per year, while the combined aspen component if harvested on an even schedule will include about 15.4 MMBF per year. Since harvesting may not occur on an even schedule, monitoring of ASQ accomplishment will be based on the total 7-year period from September 1991 to September 1998

The NFMA planning regulations at 36 CFR 219.3 define Allowable Sale Quantity as,

"The quantity of timber that may be sold from an area of suitable land covered by the forest plan. . . . This quantity is usually expressed as the average annual allowable sale quantity."

The key phrase in this definition is "quantity of timber". Quantity is measured in board foot volume and the amount of aspen offered for sale will be monitored using the board foot volume figures in Table 1. This is also required by the NFMA regulations at 36 CFR 219.16. The aspen volume, if harvested on an even schedule, will average about 1,370 acres per year including about 54 acres from high accessibility cost areas (Special Aspen Component); however, it will be the volume of aspen, not the acres of aspen, offered for sale that will be used as a monitoring item to determine if the objectives of the Amended Forest Plan are being met.

The ASQ in the Amended Plan is based on live green trees. Dead timber removed in a commercial sale is chargeable against ASQ, if the timber was alive at the time of the determination of the ASQ. Personal use firewood is not a chargeable component of ASQ. Commercial firewood would be a chargeable component of ASQ if the product consisted of wood which was still living and contributed to the growing stock volume at the time of the inventory on which ASQ projections were based. In this case, it would be chargeable to either the Conifer POL Component or the Aspen POL Component as appropriate.

The footnote on page F-7 of the Amended Forest Plan should be replaced with the following:

"The 5 MMBF of nonchargeable volume in Table F-7 is based on annual personal use firewood sales. Approximately 2 MMBF of personal use firewood will be harvested from lands designated suited for timber production. The remaining 3 MMBF of personal use firewood volume will come from lands

designated as not suited for timber production. This volume is mainly comprised of salvaged mortality or live tree harvests to achieve wildlife, visual, insect and disease control, or other multiple-use objectives.

"Commercial harvest of dead ponderosa pine (on suited lands) but which was alive at the date of this amendment, is chargeable against ASQ, either as sawtimber or conifer POL, whichever is appropriate to the product sold."

The Amended Forest Plan changes the number of acres designated as suited for timber production from 476,251 acres to 550,131 acres. The original Forest Plan included a small amount of aspen in the suited land base. The Amended Plan increases the aspen component to 169,318 acres. The original Plan included mostly conifer in the 476,251 acre suited land base. The Amended Plan decreases the conifer component to 380,813 acres.

The change in suited acres does not require a change in Management Area designation as the additional acres are located within Management Areas where timber management, that is, scheduled timber harvesting, is compatible with the Management Area emphasis. The location of the lands designated suited for timber production is shown on the maps included with the Amended Forest Plan. Table 2 shows the break down of suited acres by major tree species.

TABLE 2

## LANDS SUITED FOR TIMBER PRODUCTION BY SPECIES

	Spruce/fir	Pon- derosa pine	Lodge- pole pine	Aspen	Total
ACRES	216,717	74,730	89,366	169,318	550,131

**Providing Additional Management Goals, Standards and Guidelines**

I am adding General Direction Goals in the Amended Forest Plan and management standards and guidelines to achieve the new goals. The additions are summarized below:

*Old Growth* - old growth forests are recognized as a valuable ecosystem which is an integral part of the biological diversity of the Forest. Direction is added to provide for the distribution and maintenance of old growth in substantial blocks of at least 30 acres in size and averaging 100 to 200 acres in size. The definition of old growth forests is clarified. (Plan, Ch III, p 9a)

*Snags* - Minimum snag requirements are increased for all tree species (Plan, Ch III, p 9b-10).

*Aspen management* - Minor changes in the descriptions of the Goals (Plan, Ch. III, p.10).

*Visuals* - Minor changes in direction for determining Visual Quality Objectives using Visual Management Inventory data and the Recreation Opportunity Spectrum as required in Forest Service Manual 2311.11 (Plan, Ch. III, p. 12).



*Riparian/aquatic habitat* - Goals, standards and guidelines are added where none existed in the original Plan (Plan, Ch. III, p. 26-28, 31-34).

*Wildlife habitat* - New standards are added which focus on habitat effectiveness indices to evaluate wildlife habitat instead of hiding cover (Plan, Ch. III, p 29).

The additional standards for range resource management under 5A and 5B Management Prescriptions (Amended Plan, p. III-128 and III-135) are deleted by this ROD. These new standards are not within the scope of this amendment. These standards may be re-considered during the allotment management planning process or future plan amendments and revision.

### **Correcting Errors in the Original Management Area Maps and Acreage Figures**

I am changing the number of acres designated under each Management Area on the Forest in order to correct errors in the original Forest Plan maps and Tables. The changes are listed in Table 3. The columns of Table 3 are described below:

*"Acres Published in Forest Plan"* - the acres reported on pages III-88 to III-90 of the original Forest Plan.

*"Actual Acres Mapped in the Forest Plan"* - the acres calculated directly from the Management Area maps included in the back page folder found in the original Forest Plan.

*"Acres in the Amended Plan"* - the new acres as shown on page III-87 of the Amended Forest Plan.

*"Net Changes"* - The difference between the "Acres in the Amended Plan" minus the "Actual Acres Mapped in the Forest Plan".

### **The Change in the Monitoring Plan**

I am changing the Forest's Monitoring Plan as described in Chapter IV of the Amended Forest Plan.

**TABLE 3 - MANAGEMENT AREA CHANGES**

Management Area Emphasis		Acres Published in Forest Plan	Actual Acres Mapped in the Forest Plan	Acres in the Amended Plan	Net Changes
1A	Developed Recreation	1,117	1,117	1,117	0
1B	Winter Sports Sites	8,191	14,523	14,523	0
1D	Utility Corridors	4,535	4,535	4,535	0
2A	Semi-primitive Motorized	490,433	288,148	330,508	+42,360
2B	Roaded Natural and Rural Rec	140,000	116,720	51,516	-65,204
3A	Semi-primitive Non-motorized	36,391	81,435	81,435	0
4B	Management Indicator Species	104,757	100,853	240,595	+139,741
4C	Woody Draws	221,796	464,080	-	-464,080
4D	Aspen Management	21,139	50,855	61,108	+10,253
5A	Winter Range (non-forested)	206,305	212,754	212,754	0
5B	Winter Range (forested)	36,389	23,579	23,579	0
6A	Livestock Grazing (improve forage)	1,001	1,001	1,001	0
6B	Livestock Grazing (maintain forage)	797,144	612,159	829,760	+217,601
7A	Timber Management (clearcut only)	18,926	50,431	-	-50,431
7A	Timber Management (all harvest methods)	-	-	549,591	+549,591
7C	Timber Mgmt (slopes over 40%)	3,221	5,090	-	-5,090
7E	Timber Mgmt (shelterwood only) (All 7 prescriptions)	296,097 (318,244)	361,486 (417,007)	- (549,591)	-361,486 (+132,584)
8A	Wilderness (Pristine)	105,475	105,475	105,475	0
8B	Wilderness (Primitive)	185,464	185,464	185,464	0
8C	Wilderness (Semi-Primitive)	176,278	176,278	176,278	0
9A	Riparian Areas	25,826	25,826	25,826	0
9B	Intensive Water Augmentation	14,580	13,256	-	-13,256
10A	Research Natural Areas	1,461	1,461	1,461	0
10C	Special Interest Areas	1,061	1,061	1,061	0
10E	Municipal Watersheds	7,440	7,440	7,440	0
	Forest Totals	2,905,027	2,905,027	2,905,027	0

## IV. BASIS AND REASONS FOR MY DECISION

### **Establishing a new Allowable Sale Quantity and Increasing the Number of Acres Designated as Suited for Timber Production**

The most significant and controversial issue addressed in the Amended Forest Plan is the ASQ for conifer species and for aspen. The factors which influenced my decision to change the ASQ in the Forest Plan from 350 MMBF to 388 MMBF are listed below.

1. Local timber demand
2. Local economic diversity and dependency
3. Local lifestyles
4. Multiple-use Goals and Objectives in the Forest Plan
5. Availability of lands suited for timber production
6. Scenic Areas
7. Roadless Areas
8. Financial efficiency of timber management
9. Aspen management

Lands designated suited for timber production are increased in this Amendment from 476,251 to 550,131 acres. The change in the timber management program in the Amended Forest Plan, due to the increase in the ASQ from 350 million board feet to 388 million board feet, is the single most influential factor affecting my decision to increase the number of acres designated as suited for timber production.

The alternatives considered covered a range from 200,203 acres (Alternative 1D) to 881,123 acres (Alternative 1E) as suited for timber production. The number of acres suited in each alternative is proportional to the ASQ for each alternative.

#### *Local Timber Demand*

Furnishing a continuous supply of timber for the use and necessities of citizens of the United States is one of the original purposes for which the National Forests were established. To determine the amount of timber the public needs, the Forest updated their timber demand analysis during the amendment process. The FSEIS, Appendix B explains the timber demand analysis conducted for this amendment (pages B-71 to B-81).

Recent harvests of National Forest conifer sawtimber reached 30 MMBF in 1990, although the average over the past 7 years has been 22.2 MMBF (21 MMBF for the last 10 years). Based on this data, the demand analysis estimates current demand to be between 21 and 30 MMBF per year, depending on the assumptions and methods used for estimating demand. Representatives of local wood processing industries have stated that demand for conifer species may rise to 38 MMBF per year by 1992.

Aspen volume harvested from the Forest reached 16 MMBF in 1990. The demand analysis concludes that current demand in the area of influence of the Forest for aspen is between 12 and 29 MMBF per year, depending on the assumptions and methods used. Discussions and analyses of aspen demand and supply have focused on both volume and acres of aspen harvest. In discussions about aspen demand, representatives of the Louisiana-Pacific Company, the primary purchaser of aspen from the Forest, have stated that 1,750 acres of aspen harvest (approximately 20 MMBF) per year is needed from local National Forests to sustain the waferboard mill.

Consideration of local timber demand, for both conifer and aspen species, was an important factor during the deliberations conducted prior to final approval of the Amended Forest Plan. The alternatives considered covered the full range of demand estimates for both species. The economic consequences to the local wood processing industries were estimated for each alternative and affected the final choice of the most appropriate ASQ for the Forest.

The national timber demand and supply relationships are currently unstable and dynamic. Developments in the Pacific Northwest related to the protection of the Northern Spotted Owl, pending legislation for the protection of old-growth forests and biological diversity, plus traditional variables that affect national timber demand, such as Canadian imports, housing starts, and interest rates, have created a situation which is unpredictable. Other National Forests, which provide timber to some of the same purchasers as the Grand Mesa, Uncompahgre, and Gunnison, have been providing a smaller supply of timber in recent years. The cumulative effects of these changes on wood processing industries in southwest Colorado have yet to be evaluated, but it is reasonable to expect demand to rise.

Local wood processing industries have stated that their demand for conifer species from the Forest is close to 30 MMBF per year. The recent increase in conifer harvest from the Forest, from an average of 21 MMBF per year to 30 MMBF per year for the past 2 years, indicates that conifer demand may be increasing. In order to provide an additional 9 MMBF per year of conifer, the Forest would need to designate suited lands in areas which are currently considered uneconomical due to high accessibility costs. We considered the possibility of establishing a non-interchangeable component for these lands, but decided that there was insufficient data available to determine the amount of volume to include in this potential component.

Local demand and stumpage paid for conifer and aspen will be monitored during implementation of the Amended Forest Plan. If the average stumpage price for conifer is high enough over a 2-year period to change the assumptions regarding economic suitability upon which this Amendment is based, the Forest Supervisor will re-evaluate the acres and volume allowed under this Amendment.

The analysis conducted for this amendment indicates that the Forest is not capable of providing the full amount of conifer or aspen species that the local wood processing industries demand, while still meeting other multiple-use objectives. This analysis included extensive inventory, computer modeling, map and aerial photo studies, conceptual timber sale planning, and field verification by resource professionals. Processes used in these analyses are explained in Appendix B of the FSEIS and in the planning records. One trade-off of this decision is the lost opportunity for expansion of the local wood processing industries. This ASQ will maintain the average amount of conifer volume harvested over the past decade and the majority of the aspen volume currently in demand from the Forest. Additional aspen volume is available from the White River National Forest. The White River's Forest Plan includes an aspen component within the ASQ and the Forest plans to offer an average of 4 MMBF of aspen sales per year located within a reasonably economical hauling distance from the mill in Olathe. The combined total of aspen volume from the Grand Mesa, Uncompahgre, Gunnison, and White River National Forests will be 19.4 MMBF from 1,770 acres on average annually. This level of available aspen should meet the local aspen demand from National Forest System lands. This strategy represents a Regional commitment to meet the needs of the local wood processing industries by providing a reliable and sustainable supply of National Forest timber. We acknowledge the demand for conifer sawtimber in the future may be high enough to change the economic assumptions about land suited for timber management.

#### *Local Economic Diversity and Dependency*

Economic analysis conducted during the amendment process estimated that approximately 600 jobs and about \$12,000,000 in personal income are generated from the harvest of National Forest timber. The employment accounts for four percent of the total workforce in the Uncompahgre Valley, and less than one percent in the Gunnison Valley. While this is a small proportion, the jobs are important to the 600 families who

depend on the wood processing industry for their livelihood. Employment is scarce within the area of influence of the Forest. The small proportion of the total economy attributable to the wood processing industry understates the role the industry plays in the lives of residents of the area. Maintenance of employment within the local wood processing industries which depend on the timber supply from the Forest, is a valid and worthwhile objective for the Forest.

In addition to the 600 jobs identified above, the recent increase in conifer volume harvested over the past 2 years has created an estimated additional 60 to 70 jobs in the area. In order to maintain these additional jobs, the level of harvest from the Forest would need to remain at the 29 to 30 MMBF level. This level of harvest is sustainable only if the ASQ equals or exceeds an average of 29 to 30 MMBF.

There is concern among the public about "below-cost" timber sales. According to the Timber Sale Program Information Reporting System (TSPIRS) financial report for 1990, the timber management program cost about \$1,000,000 more than was recovered in revenues. This \$1,000,000 expenditure generates the \$12,000,000 in personal income discussed above. With this decision, I am concluding that the investments in the Forest's timber management program are well spent.

There are mixed opinions about the effects timber harvesting has on the recreation and tourism industry. Some believe that the capacity of the Forest for dispersed recreation is so large that timber harvest will never reduce the attractiveness or use of the Forest. Others believe that harvest in certain areas will actually discourage the use of large parts of the Forest and encourage people to recreate in entirely different parts of the state or even the Nation.

In the Amended Plan, we conclude that overall recreational use on the Forest will not decrease, but some recreation visitors may shift their use to other parts of the Forest due to timber harvest activities. A portion of the recreation sector of the local economy, which largely depends on non-resident recreation visitors, focuses on the beauty and undisturbed appearance of certain parts of the Forest. These areas of the Forest, which many public comments mentioned specifically, will be managed in a way that attracts these people and, thereby, supports the local tourism industry. The management of the San Juan Scenic Byway is one example of this emphasis. Deleting portions of these areas from the suited timber base is compatible with management goals for the areas and, quite possibly, will make timber harvesting on the remaining suitable acres more predictable and reliable. Management of the forest to provide good wildlife habitats, either through wildlife habitat improvements included in the original Forest Plan or through implementation of the old growth and riparian standards being added in the Amended Forest Plan, will enhance the recreational attractiveness of the Forest. These changes will help maintain the recreation-dependent jobs and income of the local economy.

#### *Maintenance of Local Lifestyles*

Closely related to the issue of local economic diversity and dependency is the issue of maintaining local lifestyles. In evaluating the alternatives, I considered the effects on local lifestyles. The effects are discussed on pages IV-55 thru IV-58 of the FSEIS. Effects on lifestyles of local residents has influenced my decision in selecting Alternative 1G as the final Amended Forest Plan. The recent increase in employment, due to the acceleration of conifer sawtimber harvesting, will probably not be sustainable under the new ASQ established in the Amended Forest Plan. To say the lifestyles of those affected may change is an understatement. What the new ASQ means is that in the next couple of years, as many as 60 to 70 people may lose their jobs. That is why we are providing for a re-evaluation of economic suitability if the economic assumptions change within the next 2 years.

The sociological analysis, conducted during the amendment process, indicates that the change in management of the Forest created by the Amended Forest Plan will not have a negative effect on the lifestyles of other Forest customers. Beyond the jobs identified in the previous paragraph, all other employment in the wood processing industries should be maintained under the Amended Forest Plan. People who are recreation

visitors to the Forest, dependent on other recreation visitors for income, or used on the Forest for grazing their livestock, will not be negatively affected under the Amended Forest Plan.

### *Multiple Use Goals and Objectives*

The Goals and Objectives of the Forest Plan are reflected in (1) the allocation of lands to management areas, (2) designating lands as suited or unsuited for timber production, and (3) the Forestwide and Management Area standards and guidelines that are to be applied. Decisions in each of these areas has the potential to affect the amount of timber included in Allowable Sale Quantity.

Certain lands have been allocated to Management Area prescriptions which preclude timber harvesting. Examples include Wilderness and Wilderness Study Areas (8A, 8B, 8C), Research Natural Areas (10A), and Municipal Watersheds (10E). Timber is not harvested from these Management Areas.

Certain lands have been assigned Management Area prescriptions which permit timber harvest with constraints. Examples are the Semi-Primitive Non-Motorized (3A), the Big Game Winter Range (5B), or the Riparian Area (9A) management prescriptions. In these areas, timber harvesting is restricted in order to accommodate the water, recreation or wildlife objectives for the management of that portion of the forest. Objectives for the maintenance of higher levels of visual quality, the maintenance of habitat effectiveness for wildlife, or the protection of riparian zones, limit the amount of timber that can be removed from an area. These objectives or restrictions are expressed in the Management Area standards and guidelines for these areas in the Plan.

Lands have also been assigned to Management Area prescriptions which emphasize timber management. Even in these areas, standards and guidelines are in effect to protect the other resources of the Forest. Measures to protect stream courses and riparian areas, to ensure the long-term productivity of the soil and to sustain viable populations of wildlife are examples of resource objectives which determine the amount and methods of timber harvest.

The ASQ I am approving allows for achieving the other multiple-use goals and objectives in the Forest Plan, while, at the same time, meeting the majority of local timber supply needs of the wood processing industry. The mix of multiple-use objectives represented in the Amended Forest Plan, including the Allowable Sale Quantity, are compatible and sustainable.

### *Availability of Lands Suited for Timber Production*

Timber harvest which results in timber volume that contributes to the ASQ can only be scheduled on lands designated suited for timber production in the Forest Plan. Management Areas which preclude timber harvest, as discussed above, are designated not suited for timber production [36 CFR Part 219.14(c)].

During the amendment process, an analysis was conducted to identify lands which were not appropriate for timber production. This analysis considered the goals, objectives, standards and guidelines in the original Forest Plan and other economic considerations. The areas were identified and mapped during an extensive inventory by the Forest. The information from this analysis was the basis for the Forest's timber land suitability analysis as required by 36 CFR 219.14. The analysis is further explained in Chapter III and Appendix B of the FSEIS. Of the 2,953,186 acres on the Forest, 1,253,541 were tentatively suited, and 550,131 were designated suited for timber production in the final Amended Forest Plan.

The results of the timber suitability analysis had a major influence on my decision to approve the Amended Forest Plan. The final stage of the analysis is a determination of which lands are not appropriate for timber production, as defined in Forest Service Timber Resource Planning Handbook 2409.13. The determination of appropriate lands results in the designation of lands suited for timber production. The amount of suited

lands varied by alternative depending on the objectives for each alternative. For the Amended Forest Plan, this final stage of the analysis reduced the tentatively suited land base by 703,410 acres (Amended Plan, Appendix F). The remaining lands were considered appropriate for meeting the objectives of the Amended Forest Plan. All lands designated as suited for timber production in the Amended Plan are considered appropriate for timber production based on Forest Service policy and procedures.

The amount of timber which can be harvested from the Forest, as represented by the ASQ, is affected by past management activities. On lands designated as suited for timber production, the *rate of timber harvesting* is affected by the condition of the surrounding lands. In some cases, existing stands cannot be harvested until adjacent stands, harvested in the past, have regenerated to a sufficient level to meet the standards established in the Plan (Amended Plan, III-42 to III-49). In some areas, there are timber stands remaining which are not large enough to form economically viable timber sales. Other stands of spruce and fir have been entered with initial stages of shelterwood cutting and must be allowed to become windfirm before being treated again.

All the conditions described above were considered in the analysis and had a significant effect on the availability of suited lands for harvesting, and consequently, the ASQ. The analysis of these factors was conducted by the Ranger Districts and is incorporated into the final Amended Forest Plan.

### Scenic Areas

The changes to the appearance of the Forest brought about by timber harvest and associated road building are effects to be considered in this decision. As evidenced in the many public comments received, there are strong negative feelings towards timber harvest and road building within certain areas of the Forest. For this reason, portions of these areas were designated as not suited for timber production in the Amended Plan. These areas include.

<i>Description</i>	<i>Acres of Aspen</i>	<i>Acres of Conifer</i>
Mt. Sneffels (North Front)	2378	5372
Silver Jack Reservoir	2587	1887
Kebler Pass	4651	1383
Lizard Head (North Front/Woods Lake)	1062	472
Telluride Ski Area	0	796
Crested Butte Ski Area	613	1456
Powderhorn Ski Area	1422	447
Trout Lake/Sheep Mountain	217	1298
Grand Mesa	0	3622
Lake Irwin	0	1287
Other Miscellaneous Parcels	437	3036
<b>Total Acres</b>	<b>13367</b>	<b>21056</b>

The total area designated as not suited for timber production in this category is **34,423** acres. This represents about 6 percent of the suited land base in the Amended Forest Plan. The trade-off in timber volume from these areas is 1.65 MMBF per year in aspen (about 134 acres) and 2 MMBF in conifer (about 246 acres).

In the Proposed Amendment, Alternative 1E, these areas were designated suited for timber production and scheduled for timber harvesting in the next decade. Public response to this proposal was overwhelmingly negative. The public cited unacceptable visual effects as the primary reason for this negative reaction to the proposal. By excluding these areas from the suited land base, we have responded to the most pronounced public comment received on the Proposed Amendment. The recreation industry depends on these kinds of environments in Western Colorado. The views of Mount Sneffels and the San Juan Range from Highway 62,

for example, are among the most photographed views of National Forest in the State. Nearly every calendar or pictorial book featuring Colorado scenery has at least one photograph of this area.

Nevertheless, trees may be cut in these areas to protect multiple-use values. We do not intend to allow insects, disease, windthrow, or fire to destroy the visual qualities for which these areas are highly regarded. But timber harvesting for these purposes will be sporadic and will not be a predictable and reliable source of volume for local wood processing industries.

### *Roadless Areas*

Three RARE II inventoried roadless areas were mentioned in public comments received on the Proposed Amendment, Kannah Creek, Tabeguache, and Roubideau. Tabeguache and Roubideau are currently included in several proposed wilderness bills before the Congress. The alternatives I considered varied in their effects on these areas as described on page IV-33 of the FSEIS. The Amended Forest Plan designates these specific areas as not suited for timber production and, therefore, scheduled timber harvesting will not occur in these areas.

The maps published with the Amended Plan and the FSEIS disclose which roadless areas will be affected under the Amended Plan. Approximately 4,500 acres (4.7 percent) of all the unroaded areas on the Forest will be affected by timber harvesting over the next decade. The roadless areas entered for timber harvest purposes are acceptable tradeoffs in order to obtain the benefits of the timber program discussed throughout this ROD. This is particularly true in light of the large number of acres designated not suited for timber production to protect recreation and scenic values.

### *Financial Efficiency of Timber Management*

In 1990, the Forest spent about a million dollars more on the timber management program than the revenue generated. Every opportunity will be taken to control the costs of timber management on the Forest, however, the opportunities are marginal and nowhere near the magnitude needed to produce a positive return. There is the possibility of increasing the minimum rates the Forest charges for timber. The Forest, together with other Western Slope Forests, is evaluating this possibility and may develop a strategy for increasing minimum rates in order to narrow the gap between the costs and revenues of the timber management program. Current stumpage prices exceed minimums by a substantial margin.

The timber management program in the Amended Plan is worthwhile in terms of the benefits to the local economy and other benefits described throughout this ROD, despite the fact that the program is financially inefficient. Due to the financial inefficiency of the timber program, the program may not be sustainable. The "below-cost" timber sale issue continues to be a major concern of the public and, unless a combination of cost control and revenue increases can produce a more favorable balance, future actions by the Agency, Department, or Congress could significantly reduce timber management programs on Forests which cannot recoup their costs.

The financial suitability analysis, as required by the NFMA regulations at 36 CFR Part 219.14(b), determined that there are no financially efficient timber lands on the Forest at current prices (FSEIS, pages B-19 to B-22). In the FSEIS, pages II-45 to II-46, several tables display the financial efficiencies of the alternatives considered. Financial efficiency was a criteria used in the evaluation and selection process. While the Amended Plan does include a financially inefficient timber program, the Amended Plan is not the most inefficient of the alternatives considered. Other alternatives would have included timber programs with a greater financial loss to the government. These alternatives included lands which were classified as "high cost" lands which were excluded in the final Amended Plan for financial reasons. It is these lands that will be reconsidered if current market trends continue.



### *Aspen Management Objectives*

One objective of aspen harvesting is the gradual replacement of mature and overmature aspen stands with newly regenerated stands which will perpetuate the species. Some aspen stands on the Forest are being replaced through natural ecological succession by spruce and fir. Over time these stands are likely to convert completely to conifer stands. Other areas are relatively stable stands of aspen and are likely to regenerate themselves. For many of these stands to regenerate into vigorous and beautiful stands of aspen for the future would require either fire, windstorm, or widespread mortality (usually from disease or old age).

Part of my objective in approving this Amended Plan is to provide for the continuous regeneration of aspen on lands suited for timber harvesting. One of the goals of the Forest Plan is to promote a healthy mix of aspen stands with a balanced distribution of age classes and, at the same time, utilize the wood fiber to meet local demands of the wood processing industries.

There is concern on the part of the timber industry that much of the aspen which is removed from the suited base for various reasons will not be utilized and will in fact die of natural causes or be destroyed by fire. This is true. Areas removed from the suited base due to biological, legal, or other resource reasons will not be managed for timber production and the timber values that could otherwise have been obtained will be lost in the interest of protecting or enhancing other values. This is also true on suited lands which are managed under multiple use standards and guidelines. The result here is also a loss of timber production opportunities as these multiple use standards and guidelines require an extended rotation for aspen and in some cases for conifer. Potential timber volume production, and the jobs related thereto, is being traded off to meet other multiple use objectives, which also have jobs related

### *Summary of the ASQ Decision*

My decision to establish a new ASQ comes following a complex, lengthy, deliberative process which was influenced by many factors. By establishing a new ASQ, the Amended Forest Plan will:

- provide a reliable and continuous supply of timber to the local wood processing industries;
- ensure that the timber supply is sustainable by considering only those timber lands which are appropriate for timber production and by considering the effects of other multiple-use standards and guidelines on the rate of timber harvest;
- sustain local economic diversity by maintaining the majority of the local wood processing industry jobs and income that the workers, their families and the local economies need;
- sustain local economic diversity by maintaining jobs and income in recreation dependent industries;
- tend to maintain local lifestyles;
- allow for other multiple-use goals and objectives in the Forest Plan to be achieved;
- retain certain scenic areas without modification by commercial timber sales;
- retain substantial portions of the Forest which are currently not roaded; and
- achieve some objectives of aspen management.

For the reasons summarized above and discussed in detail in this ROD, Alternative 1G, selected as the final Amended Forest Plan, maximizes net public benefits.

### **Adding General Direction Goals and Management Standards and Guidelines**

Part of my decision to approve this amendment includes the addition of changes to the General Direction goals and Management Area standards and guidelines in the Amended Forest Plan. Changed portions are highlighted in the document by asterisks. Many of these changes are clarifications to standards and guidelines. Others changes are additions designed to strengthen standards and guidelines to protect or enhance a particular resource and reflect a better understanding of these resources since 1983

The new standards and guidelines were considered for all the alternatives developed and considered for this amendment. Alternative standards and guidelines were not evaluated. The new standards and guidelines are necessary in order to comply with applicable laws, regulations and policies.

#### *Biological diversity and Old Growth (changes at III-9):*

Biological diversity, and in particular old growth, is given more emphasis in the Amended Forest Plan. Old growth is an important element of biological diversity. Old growth has economic value in the wood products that can be produced, but it also offers other unique values. The species richness of old growth stands, in terms of both plant and animal species, exceeds that of any other forest ecosystem. Old growth stands are the most nearly in balance in terms of nutrient cycling and community maintenance of all successional stages. These values are recognized in the new standards and guidelines as an important part of the Forest

The FSEIS, pages II-27 and IV-10, discusses the effects of the alternatives on old growth. Given the mitigation measures and new standards and guidelines developed for old growth, any of the alternatives would have been acceptable choices with respect to old growth. Under any alternative, the majority of the potential old growth acres on the Forest would be located within lands designated as not suited for timber production and would be maintained.

The timber management program in the Amended Forest Plan will create some loss of old growth. The loss is acceptable in order to obtain other benefits as discussed throughout this ROD. The Amended Plan represents a reasonable balance for maintaining old growth along with the opportunity to provide timber for maintaining the local wood processing industries.

The new standards and guidelines in the Amended Plan ensure that old growth is retained in large enough blocks to provide effective habitat for old growth associated species in each diversity unit on the Forest. The changes provide for inventory and management of the Forest to provide old growth over the long term and to manage to obtain old growth conditions in areas without sufficient amounts.

#### *Snag Management (change at III-9b)*

Snags (standing dead trees) provide one of the most important elements of wildlife habitat in a wildland setting. Certain species of wildlife are dependent on their existence. Changes in the Amended Plan are made to reflect recommendations in the "Wildlife Habitats in Managed Forests of the Blue Mountains of Oregon and Washington" by Jack Ward Thomas, USDA Agriculture Handbook No. 553. These guidelines incorporate results from current research and is applicable to the Forest. The new snag standards are needed to maintain minimum viable populations as required under the National Forest Management Act.

#### *Aspen Management (change at III-122):*

The Forest has adopted two publications for guidance in aspen management; "Aspen Ecology and Management in the Western United States" (Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-119), and "Examples of Aspen Treatment, Succession and Management in Western Colorado"

(Examples of Aspen Treatment, Succession, and Management in Western Colorado, Barry Johnston and Leonard Hendzel, USDA Forest Service, Rocky Mountain Region, Lakewood, Colorado, 1985). These documents incorporate the most recent information on aspen management into the Forest Plan where appropriate.

*Visual Resource Management (change at III-12)*

Changes to the Visual Quality Objectives for ROS classes reflect development of a more complete understanding of how these two inventory and management objective systems are inter-related. Changes in the Amended Plan incorporate new policy as described in Forest Service Manual 2311 11. This new direction was developed since the 1983 Plan was published.

*Riparian/Aquatic Habitat Management (changes at III-26 to III-28, III-31 to III-34, III-50, III-52, III-176 to III-188):*

The Riparian Management Area direction (Management Prescription 9A) is clarified and more specific direction is added to the standards and guidelines. The original Forest Plan direction was not clear and more specific direction was needed to improve riparian area management on the Forest.

Since 1983, our understanding of the role riparian areas play in the health of the overall ecosystem has increased significantly. The maintenance of these areas in a healthy condition is essential to the proper management of the Forest. Riparian areas' contribution to biological diversity is disproportionately large considering the area they occupy. Stable stream channels and banks, with healthy native vegetation regulate stream flow, provide fisheries and wildlife habitat, reduce soil erosion and sedimentation and are more attractive for the recreation user. Healthy riparian range lands produce more (in terms of quantity) useable forage.

The importance of riparian areas in the ecosystem is recognized in the new standards and guidelines, and the areas will be carefully and actively managed under the Amended Forest Plan. It is for these reasons that the improved and expanded direction for riparian area management has been included in the Amended Plan.

*Wildlife Habitat (changes at III-29)*

Since the original Forest Plan was developed, research has identified better methods for determining big game habitat effectiveness. The new habitat effectiveness analysis techniques incorporate the effect of roads in addition to cover and forage. The changes in the Amended Plan are being made to incorporate these new methods into the plan implementation process.

**The Change in Management Area Designations**

Selected Management Areas shown on original Forest Plan maps have been changed in the Amended Plan to reflect corrections in on-the-ground capabilities and to correct errors detected in the original mapping process. There are no differences in allocation decisions between the 1983 Plan and the Amended Plan. Changes in the allocation of Management Area direction to specific locations on the Forest (Management Areas) is beyond the scope of this Amendment and will be addressed during the Forest Plan revision process.

**The Change in the Monitoring Plan**

The monitoring plan in the Amended Forest Plan, Chapter IV, shows considerable change from the 1983 Plan. The changes reflect a better understanding of both the concepts of monitoring at the Forest Plan level and the costs, logistics and value of specific monitoring practices. Three types of monitoring are recognized, implementation, effectiveness, and validation monitoring.

Effective monitoring is essential to the successful implementation of the Amended Forest Plan. The new monitoring plan represents our best strategy for successful implementation.

## **Other Issues Considered**

### *Wildlife Habitat*

Under all the alternatives considered, maintenance of viable populations of native fish and wildlife species is ensured through the standards and guidelines which existed in the original Forest Plan and the standards and guidelines added to the Amended Plan.

The Amended Plan has a relatively positive effect on habitat for big game and for other indicator species when compared with the other alternatives (FSEIS reference). Effects on wildlife habitats was not a major factor in my decision to approve the Amended Plan because the differences among alternatives are not significant. Wildlife habitat needs are provided for in all alternatives.

Page IV-48 of the FSEIS discusses the potential effects of alternatives on Threatened or Endangered Species. The environmental analysis done for the Amended Plan determined that none of the alternatives considered would have any negative effect on these species (FSEIS, page IV-48 to IV-49, IV-64). Further analysis will be conducted during project level analysis. Standards and guidelines in the Plan, together with the new monitoring plan, are intended to ensure the protection of Threatened or Endangered Species.

The U.S. Fish and Wildlife Service, following review of the Draft Supplemental Environmental Impact Statement and Proposed Amendment, responded that "it is impossible through one consultation to render a 'may affect' or 'no effect' determination on all programs and activities that are identified in the DSEIS (FSEIS reference). Consultation is required on a case-by-case basis prior to implementation of each project that the Forest determines "may affect an threatened or endangered species."

Through this review and correspondence, we have met our obligation under Section 7 of the Endangered Species Act to consult with the Fish and Wildlife Service. As the Plan is implemented, we will continue to conduct biological evaluations for projects. If a "may effect" determination is made, we will conduct formal consultations with the Fish and Wildlife Service. The Forest's goal is to protect and enhance habitats for Threatened, and Endangered species to promote their recovery.

Management Prescriptions 5A and 5B emphasize the maintenance and enhancement of big game winter range habitat on nonforested and forested lands, respectively. In the Amended Forest Plan, a standard and guideline affecting range resource management (livestock grazing) was added under the 5A Prescription and an existing standard, also for range resource management, was described in greater detail in the 5B Prescription. Implementation of these standards could significantly affect the livestock permittees on the Forest. Alternatives to these additional standards and the environmental effects have not been completely evaluated. Due to this fact, we are deleting the additional language in the Amended Plan, however, all the standards and guidelines from the original Forest Plan are retained.

### *Recreation Opportunities*

One of the factors which affected my decision on the ASQ level in the Amended Plan, was the effect on roadless areas. The effects were discussed in the earlier section on the ASQ decision and are closely linked with the effects on semi-primitive non-motorized recreation opportunities on the Forest. Beyond these effects on semi-primitive non-motorized opportunities, the FSEIS shows no significant difference among alternatives in their effect on other recreation opportunities on the Forest.

### *Water Quality*

Sediment originating from soil erosion is the primary water quality effect from forest management activities. The quality of water flowing on the Forest in high streams is important to fisheries, riparian ecosystems, stream channel stability and as a scenic resource. Alternatives 1E and 1H are the only alternatives considered with significant negative effects on water quality (FSEIS, pages IV-29 to IV-30). The FSEIS shows essentially the same level of water quality for all the remaining alternatives. This water quality level exceeds all applicable water quality standards and, therefore, was not a critical factor in my decision to approve the Amended Forest Plan.

### *Maintenance of the Local Livestock Industry*

As discussed earlier, the Amended Plan provides new direction for the protection and maintenance of riparian areas. The new riparian area standards and guidelines will be of interest to livestock permittees on the Forest. Many allotments do not contain enough riparian area to be significantly affected by the new direction. In other allotments, the riparian areas are in good condition under current management, while, in some, management objectives and standards can be met using various management methods such as varying grazing patterns, season adjustments, fencing, other range improvements, and non-continuous grazing systems without reducing the permitted use. Determinations on permitted numbers for individual allotments are beyond the scope of this decision and will be made through the allotment planning process.

In approving the Amended Forest Plan, I am deciding that the new riparian standards and guidelines are appropriate.

### *Insect and Disease Control*

An important objective of timber harvesting as a management tool is to prevent the spread of forest insect and disease. Healthy, vigorous forests are more resistant to attack from insects and disease. Insects and disease tend to spread to stands of trees adjoining infected areas. The spread can often be abated by isolating the affected areas through timber harvesting. Through the harvest of infected stands, we are able to utilize the wood fiber that would otherwise be lost.

The number of acres scheduled for timber harvesting under the Amended Forest Plan is so small that the ability to influence forest health is minimal. Only three-tenths of 1 percent of the forested acres would be the average number of acres treated each year under the Amended Plan. For these reasons, the effects of the changes in the Plan on insect and disease control had little effect on my decision to approve the Amended Plan.

When insects, disease, windthrow, and fire become significant factors, we will be reactive, rather than proactive. Under provisions of the NFMA, we will react to protect multiple-use values.

## **V. RESPONSE TO POINTS RAISED IN THE SECRETARY'S DECISION TO REMAND THE ORIGINAL FOREST PLAN**

In the Secretary's Decision Letter of July 31, 1985, certain points were raised which must be addressed in this Record of Decision. I will quote these points verbatim from the Decision and respond to each individually.

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*USDA Decision Letter*

**"Where, as is the situation on the San Juan and GMUG (Grand Mesa, Uncompahgre, and Gunnison National Forests), the selected alternative authorizes an expansion of timber sales, and the projections are for costs to exceed revenues for the entire planning horizon, a considerable greater burden is imposed on the Forest Service to provide even greater detail as on the rationale for, and specific benefits that will be achieved from such a continuation and expansion." (USDA letter, p.6)**

*Response*

The Amended Forest Plan I am approving does propose an increase in the amount of timber offered for sale annually when compared to the original Forest Plan. The increase does not represent an "expansion" as described in the Secretary's decision. The conifer sawtimber component of the timber program is actually being reduced. The increase in the total ASQ is created by the addition of 138 MMBF of aspen POL (above that called for in the 1983 Plan) in response to the newly created market for that species.

While no lands are financially efficient for the conifer program, the economic efficiency of the conifer program is actually improved under the Amended Plan. The aspen program is neither financially nor economically efficient (FSEIS, II-34, II-45). My reasons for making this decision, in light of the financial and economic inefficiencies, are clearly explained in detail in Section IV of this ROD. My reasons for not selecting one of the other alternatives are explained in Section VI of this ROD.

*USDA Decision Letter*

**"..., an explanation is needed as to why increasing the dependency of local community mill capacity and jobs which could result from an increase in sales of National Forest timber with revenues exceeding costs, will contribute to greater national or local welfare; especially since increased dependency upon submarginal timber sales would seem to result in potentially greater community instability due to uncertainties over continuation of a relatively high level of Federal funding to support a timber program with costs greater than revenues. The ROD should address this question."**

*Response*

The Secretary's concerns grew directly from the original Forest Plan's objective to "expand" timber sales from current levels resulting in a rapidly expanded manufacturing capacity and employment. If sales continued to be below-cost, and funding were to be reduced for below-cost programs, the Plan ASQ introduced a potentially unstable economic situation for local communities.

The Amended Plan I am approving changes the original ASQ in two ways; it increases the Aspen component of the ASQ and decreases the Conifer component of the ASQ. The increase in Aspen POL is being made to accommodate an increase in demand for Aspen POL volume. My decision to set ASQ at levels shown in the Amended Plan is based in part on the limitations of the Forest to produce higher volumes of wood and still be consistent with other multiple-use objectives of the Plan and with the objective of resource sustainability. One of the primary considerations in the development of the timber program in both aspen and conifer is the ability of the Forest to sustain the supply of timber necessary to prevent sudden decline which would negatively impact local industry in the future. In approving the Amendment, I am not creating a situation as described in the Secretary's decision. The industries which utilize the timber resource already exist, therefore, I am not encouraging the development of new industries or the expansion of existing industries.

Our projections estimate that, under current conditions, the timber management program for the Amended Plan will be both financially and economically inefficient over the planning period, 1991 through 1998. There are two aspects of financial efficiency over which the Forest has some control: the costs of the program and the revenues. The Forest has taken substantial efforts to reduce the costs and enhance revenues from the timber program (FSEIS, III-2). These efforts are also discussed later in this Section

The Forest is currently considering raising minimum rates for aspen. This is an administrative decision which is not considered a part of the forest planning process addressed in this ROD. Potential effects of this action, if it is taken, are described in some detail in the FSEIS at pages II-46/47, III-15, and B-19/20.

An alternative which provides for a financially efficient timber management program was not considered in detail in the FSEIS. The reasons for this are explained in Section VI, Decision Process.

#### *USDA Decision Letter*

**"Is the timber program as currently proposed actually the most cost effective way to achieve the non-timber multiple use objectives of the plan?" (p.8)**

**"Are the non-timber multiple use benefits to be achieved through the timber program really needed? Do projections of demand for these non-timber objectives support the need for the Federal expenditure required to achieve them? What are the high-level non-timber and amenity benefits that would be lost and who would be affected by the change and in what ways?"(p.9)**

**"Are there other ways to accomplish vegetation management more cost effectively than through a timber program as currently proposed? The Forest Service has been exploring the use of prescribed fire for this purpose in Colorado. Does this technology, used in conjunction with timber sales where economically efficient, hold promise to reduce the cost of vegetation management?" (USDA letter, p.8-9)**

#### *Response*

Alternative methods of accomplishing non-timber multiple use objectives were examined in the FSEIS (Page II-8 through II-9). These objectives include producing benefits in terms of water yield production, wildlife habitat improvement, regeneration of timber stands, suppression of insect and disease attack, and overall perpetuation of a healthy forest. Alternative methods considered to produce these benefits included use of prescribed fire, mechanical methods including cut and leave, and chemical treatments. All of these were found to be less financially efficient and would accomplish only a portion of the Plan objectives. All these methods involved the expenditure of funds which would result in no revenues, and are, therefore a less cost effective means for meeting management objectives.

In addition, the objective of providing raw material for the local industry to process, with all the attendant benefits to the local economy would not be achieved. For these reasons, these methods were discarded from consideration early in the analysis. This topic is discussed in the FSEIS on pages II-9, II-10, III-1, and III-2.

Since the original Forest Plan, we have re-analyzed the relationship between timber harvesting activities and the effect these activities have on other resources in the affected areas. The results of our analysis indicate that our original assumptions overstated the benefits of timber harvesting to other resources. These benefits cannot be measured in absolute numbers with a high degree of reliability, therefore, these assumptions were not used in the analysis for this amendment

Water is the only resource benefit quantified and valued in the analysis for this amendment. Increased water yield has a significant effect in the calculation of Present Net Value for each alternative considered. The valuation of water is a matter of debate. Estimates of the amounts of water produced as a result of timber harvest in certain areas of the Forest and the value of that water are purposely conservative. The analysis process used to determine the economic value of increased water yields are explained in Appendix B of the FSEIS at pages B-40 thru B-41.

The Amended Forest Plan does not rely on the timber management program to produce other resource benefits in order to meet the demand for these resources. Due to this fact, the points raised in the Secretary's Decision in this regard are moot.

#### *USDA Decision Letter*

**"To what extent can timber program costs be cut and/or revenues be enhanced while still providing an appropriate level of non-timber multiple use objectives?" (p 8)**

**"The ROD and other planning documents should also include a discussion of, or a reference to, the steps that will be taken to reduce timber costs and/or enhance revenues while meeting appropriate multiple use objectives and dependency needs of local communities. The effect that such steps, if successful, would have on improving the economic efficiency of the timber program should be evaluated and explained." (p 10)**

#### *Response*

This issue was a principal point in the appeals of the Forest Plan by the Natural Resources Defense Council, and the concern of many respondents to the 1989 DSEIS. For the past decade, the Forest Service, as an Agency, has concentrated on ways to improve the financial efficiency of timber management. Numerous recommendations have come out of the Productivity Improvement Team (PIT) reports (various publications 1983-1985), the National Administrative Review, Timber Sales Chapter (NAR 1984), and The Analysis of Costs and Revenues ... of Four National Forests (1986). Most recently, in a continuing effort to improve the financial efficiency of timber management, the Forests have adopted several recommendations from these reports. The results of our efforts are discussed in detail in the FSEIS (p. III-2 through III-3).

The changes that could be made to reduce costs or enhance revenues of the timber program are administrative decisions which do not require amendment of the plan and are not a part of this decision.

The suitability analysis (for timber production) conducted for this amendment will result in a more efficient timber management program. In this process, lands were identified which would require excessive costs to access. Most of these areas were designated as not suited for timber production in the Amended Plan for this reason.

In the period between 1983 and 1990, the Forest made a number of changes to reduce timber management costs. A number of timber staff jobs have been eliminated, including four full time positions in the Supervisor's Office and three at the District level. The Forest Supervisor's office positions were eliminated as the responsibility for various jobs was given to the Ranger Districts. The District level positions were eliminated by reorganizing the timber staffing, one on each Ranger District, into four timber management zones on the Forest.

;



Timber management policies were also changed as explained below:

- Natural regeneration is now the preferred method for re-stocking an area following a final harvest. Natural regeneration costs eighty percent less than planting and maintains a higher level of genetic diversity in the new stand.
- The methods used for determining the amount of volume within a timber sale has been simplified to reduce timber sale preparation costs.

There are limited opportunities to reduce costs further for the timber management program on the Forest (FSEIS, B-105). Roads are being designed and built to the minimum acceptable standards to achieve objectives and only roads needed to accomplish specific management purposes are planned.

Potential increases in aspen prices have been studied and are presented in the FSEIS, pages II-44 through II-47. All the alternatives considered included an aspen management program where costs exceed revenues. The analysis results indicate that aspen rates would need to be increased by nearly four hundred percent, from \$44 per thousand cubic feet to \$152 per thousand cubic feet, for the aspen management program to meet or exceed current costs

Conifer prices have been increasing in the current market. Average prices in 1989 and 1990 have doubled over those in previous years. Increasing minimum conifer prices is currently being addressed at the Regional level and not at the Forest Plan level. The conifer program will break even or better if market trends continue and costs are contained. The aspen program is unlikely to break even in the foreseeable future. The jobs and income associated with the aspen program are the main reasons for continuing with the aspen program, in the face of the prospect for continuing financial inefficiency.

#### *USDA Decision Letter*

**"The Chief is directed to ensure that the planning documents provide complete and adequate information concerning the economic implications of the various alternatives and that the ROD's clearly explain why the selected alternative for each Forest is felt to maximize net public benefits."**  
(p.10)

#### *Response*

The economic implications of the alternatives considered are discussed in detail throughout the FSEIS. Chapter II, pages II-40 through II-64, discuss difference in economic efficiencies among the alternatives considered. Effects on government cash flows, revenues, budgets, employment, personal income, payments to counties, and social effects are discussed and explained. Chapter IV of the FSEIS, pages IV-52 through IV-54 contains discussions of the economic consequences of the alternatives considered.

In Section IV of this ROD, I explain the reasons why I feel that selecting Alternative 1G as the Amended Forest Plan maximizes net public benefits.

#### *USDA Decision Letter*

**"The Chief's decision for the San Juan directs the Regional Forester to supplement the record with information on timber demand projections in the area. By this decision the Regional Forester is also directed to discuss in the planning records the circumstances under which increased demands (and presumable increases in timber prices associated with those increased demands)**

would lead to increases in timber sales offerings during the plan period. The effect of projected price increases on economic efficiency and decisions to increase timber sale levels should be discussed as well." (p.10)

*Response*

The timber demand study developed for the original Forest Plan has been updated. The results of the update are summarized in the FSEIS, pages III-16 through III-19. A more detailed discussion is found in Appendix B, pages B-70 through B-81.

Before an increase in ASQ is considered strictly on the basis of demand, Forest monitoring and evaluation must demonstrate, based on current and expected timber revenues, that the increase in ASQ would not exacerbate the financial inefficiency of the timber management program. Future change in the ASQ must be developed through the Forest Planning amendment process. If monitoring shows a sustained and significant increase in timber prices, say for 2 years, the economic assumptions about suitable acres will be re-evaluated.

*USDA Decision Letter*

"The Chief then directs the Regional Forester to supplement the FEIS with the appropriate reference to the existence of the Stage II analysis in the planning records.... The Forests should discuss the results and implications of this economic analysis in a way that is meaningful to the public and should describe in the planning records how this information was used in the formulation of alternatives, in the development and selection of prescriptions to be applied to specific lands for timber management." (p 10-11)

*Response*

Stage II analysis is a financial efficiency analysis of timber harvest prescriptions required by the NFMA planning regulations at 36 CFR 219.14(b). The Forest conducted the analysis and the results are summarized in the FSEIS, pages III-13 through III-15, Appendix B, pages B-19 through B-21 and in the planning records. The Appendix discusses the results in detail, the implications of the analysis, how the results were used in formulating the alternatives, and the effect on the choice of timber management prescriptions in the final Amended Plan.

## VI. DECISION PROCESS

### Public Participation

Following the Secretary's Decision on the original Forest Plan appeals, the Forest Supervisor initiated a substantial public involvement program. Formal public involvement activities included:

- four Notices of Intent in the Federal Register concerning the preparation and issuance of the draft SEIS and Proposed Amendment.
- a meeting on October 29, 1986, with the appellants and intervenors to review the proposed work plan for the re-analysis and to identify areas of specific concern by participants.

- notification through the Forest Plan mailing list (over 400) and other interested agencies and organizations of the availability of an Addendum to Planning Actions 2 (Planning and Decision Criteria) and 3 (Inventory Data and Information) for review and comment
- mailing of a draft Addendum to Planning Action 4, Analysis of the Management Situation, to interested agencies, organizations, and individuals for review and comment
- holding seven "Open Houses" to distribute and explain the draft SEIS and Amendment.
- conducting an open dialogue from June through November of 1988. A private, non-profit facilitator, the Keystone Center, was employed by the Forest in an attempt to develop an alternative using the "informed consent" approach (FSEIS, Appendix A, Exhibit 5, page A-7).
- a 130 day public comment period followed issuance of the draft SEIS and Amendment. People were invited to review and comment on the documents through newspaper articles, radio and TV announcements, and in community contacts. The Public Comment period closed on September 25, 1989, with the Forest receiving over 2,700 responses (containing about 7,600 separate comments). The majority of the respondents were Colorado residents with about 61 percent living in or near the Forest. There were 27 letters from local, state, and federal agencies.

Content analysis of the responses confirmed that the issues and concerns and associated planning questions addressed in the draft SEIS were valid. However, for some of the issues, public comments related to concerns for specific areas on the Forest, emphasizing a new or different facet of the issue. For instance, while the public continued to be concerned over the issue of timber management, many of the comments focused specifically on the visual and recreational values of aspen forests rather than the Forest as a whole. These comments were consolidated into 49 issue areas. All the public comments received are included in Chapter VI of the FSEIS. The areas of concern emphasized in the public comments included:

- extensive opposition to the proposed level of aspen cutting, especially in areas with high scenic value.
- opposing views on the effects of timber harvesting on recreation and on local economies.
- mixed opinions over the importance and contribution made by the jobs and income from local wood processing industries to the overall economic base.
- mixed opinions on the emphasis individual resources should receive, especially timber and recreation management. Many questioned the need to continue and/or expand timber sale programs in west central Colorado where outdoor recreation is so important to local lifestyles and the economy. The majority of comments, including those from the local, state, and federal agencies, felt that the level of timber harvesting in the Proposed Amendment was too high and would conflict with other multiple-use values on the Forest
- concern over the proposed new roads needed to support the timber program, and the resultant effects of logging truck traffic on those roads and to forest visitors.
- the method of determining the lands suited for timber production was questioned. Specifically, people questioned why lands which were very high in other multiple-use values had to be included in the suited land base
- why the Forest sells trees to commercial operators for less money than it cost to prepare and offer the timber sale ("below-cost" timber sale issue).

- specific management practices, especially clearcutting and mitigation measures in timber management activities.
- the economic benefits of increased water production following timber harvest.
- mixed opinions on the effects of timber harvesting on fish and wildlife resources.

The public comments, together with the decision of the Secretary of Agriculture in his review of the 1983 Forest Plan appeals, resulted in the issues summarized in Section II of this ROD. The issues are addressed through the alternatives formulated and evaluated during the amendment process.

### **Reasons For the Change in the Allowable Sale Quantity Between the Proposed Amendment and the Final Amended Plan**

Under the Proposed Plan Amendment published in May 1989, the ASQ expressed, as an average annual amount, would have been 63.3 MMBF, including 31 MMBF of conifer sawtimber, 4.3 MMBF of conifer POL and 28 MMBF of aspen. In the Final Amended Plan, the ASQ, expressed as an average annual amount, is 38.8 MMBF, including 21 MMBF of conifer sawtimber, 2.4 MMBF of conifer POL and 15.4 MMBF of aspen. The 1989 Proposed Amendment would have designated 856,783 acres as suited for timber production. The final Amended Forest Plan designates 550,131 acres as suited for timber production.

The 24.5 MMBF annual reduction in the ASQ and the 306,652 acre reduction in lands designated as suited for timber production is due to three factors.

1. A re-evaluation of the basic data in the computer models used to estimate the ASQ. This included the location and condition of tentatively suited lands, timber yield estimates, and economics.
2. A site-specific evaluation of the effects of resource standards and guidelines on the availability of timber and the rate at which the timber could be harvested in order to provide long-term sustainability of the timber resource.
3. Negative public response to the Proposed Amendment's scheduling of timber harvests within specific areas of the Forest.

#### *Re-evaluation of Basic Data*

Since publication of the DSEIS, Ranger District staff have made significant efforts to evaluate the data used in the analysis for the Proposed Amendment and DSEIS. The Districts reviewed the results of the analytical models, large scale (1:24,000) maps and aerial photos of the Forest, and compared these with the planning data base. Field trips were conducted to verify their findings.

The 1,253,541 acres of tentatively suited timber lands were evaluated to determine if the lands were appropriate for timber production based on four criteria. The general process and policy for conducting this type of analysis is described in Forest Service Handbook 2409.13, Timber Resource Planning Handbook. Timber stands, with one or more of the following characteristics, were identified as not appropriate for timber production and, therefore, not suited.

;

1. Covered by more than one third surface rock
2. Low site productivity and accessibility problems
3. Steep slopes and/or excessive roading costs
4. Unstable soils

These criteria and the results of the analysis are explained in detail in the planning records (R-1920-2-2E). As a result of this analysis, 703,410 acres of tentatively suited timber lands were designated as not appropriate for timber production.

#### *Site-specific Analysis of the Effects of Standards and Guidelines*

Ranger Districts prepared conceptual timber sale designs for the next 10 years on the 550,131 acres of tentatively suited lands which remained following the analysis discussed above. The analysis incorporated both Forestwide (General Direction) and Management Area Standards and Guidelines and the effect on the size and location of the conceptual timber sales. This level of spatial analysis was not done prior to the 1989 Proposed Amendment.

The result of the conceptual timber sale designs was a significant decrease in the *rate* which timber could be scheduled for harvest, thereby causing a significant reduction in the potential ASQ. The analyses are explained further in the planning records (R-1920-2-2E).

#### *Public Response to the Proposed Location of Certain Timber Harvests*

Many of the comments received on the Draft SEIS and Proposed Amendment were directed at proposed timber harvesting within certain areas of the Forest which have a high scenic value to many members of the public. These included areas near Mt. Sneffels, Kebler Pass, Silver Jack Reservoir, three ski areas, the Grand Mesa, Lake Irwin, and other smaller areas.

In response to public comments, the tentatively suited lands within these areas, 34,423 acres, were not designated suited for timber production in the final Amended Plan. The acres are shown in more detail in Section IV of this ROD. Scheduled timber harvesting is precluded in the areas, therefore, no commercial timber sales are planned and the acres are not considered in determining the ASQ. The amount of timber volume which these areas could provide, on a sustainable basis, is approximately 2 MMBF of conifer and 1.65 MMBF of aspen per year.

Collectively, the three factors described above created a reduction in the Allowable Sale Quantity and the suited land base outlined in the Proposed Forest Plan Amendment.

#### **Deliberations Between the Proposed and Final Forest Plan Amendments**

Two meetings were held in March 1990 (Regional Forester's letter of May 11, 1990) to discuss the results of the analyses described above. Site-specific examples of the results of the analyses were presented to me and the Forest Supervisor by several District Rangers and staff. Another meeting was held on June 4, 1990 to review summaries of the aspen availability analysis and discuss alternatives. In October 1990, I spent 2 days with the Forest Supervisor and District Rangers reviewing conditions on the ground. We participated in aerial and ground reviews of areas scheduled for harvesting in the Proposed Amendment where problems of accessibility, economics, and potential conflicts with other resources existed. The documentation for all these meetings and discussions is in the planning records (R-1920-2-4A).

The availability of aspen from other Forests within the area was evaluated and potential volume from the White River National Forest was identified. Aspen volume was already incorporated into the White River's ASQ (White River Forest Supervisor's 2400 letter to Acting Director, TFP&CFM, December 5, 1990). The final discussions concerning the aspen component of the ASQ were held during a meeting between the Forest Supervisor and my staff in November 1990. On March 22, 1991, we met to discuss the conifer situation and the results of the availability analysis conducted by the Ranger Districts. Further discussions concerning the conifer component of the ASQ were held during a meeting on September 12, 1991, between Regional Office and Forest staff to resolve questions raised by the wood processing industries.

The final decision on the Amended Forest Plan was delayed for more than 45 days following the release to the public of the FSEIS and the Amended Plan. During this time, we received comments from over 400 people. Comments from representatives of the timber industry, environmental organizations, county commissioners, local area chambers of commerce, the State of Colorado Governor's office, and many individuals were reviewed and considered. Numerous letters and several petitions representing a variety of opinions were received. The final decision on the Amended Plan is made after thorough consideration of the comments.

### **Alternatives Considered**

I met personally with all who asked, and discussed the issues by telephone with others. I made a commitment that a Forest representative would attend the annual meeting next summer of the Ragged Mountain Homeowners Association to explain the Amendment and to answer questions.

Six alternatives for addressing the issues were formulated and evaluated. These alternatives provided a broad range of possible choices for amending the Forest Plan. Below is a brief summary of the alternatives and how each one addressed the issues. For each alternative not selected, the reasons the alternative does not maximize net public benefits are explained.

In formulating and evaluating alternatives, the primary focus was the change in ASQ and the effect of various ASQ's on the issues. Alternatives were not formulated and evaluated for the changes in Goals, Standards and Guidelines, Management Area designations, or the Monitoring Plan.

#### *Alternative 1A*

This Alternative is the "no action" alternative required by the National Environmental Policy Act (NEPA) and the "current management direction" alternative required by the National Forest Management Act (NFMA). The alternative has an ASQ of 350 MMBF and a suited land base of 362,498 acres. The ASQ is composed of 311 MMBF of conifer sawtimber and 39 MMBF of Products other than Logs (POL). A more detailed description of the Alternative can be found in the FSEIS, pages II-12 to II-13.

I did not select Alternative 1A due to the lack of a substantial aspen component in the ASQ and the effect it would have on the local wood processing industry and, subsequently, the loss of jobs and income in the local community (FSEIS, p. IV-53). The absence of an aspen component would result in the closure of the Louisiana-Pacific mill and, subsequently, the loss of 353 jobs and \$5.9 million in personal income (FSEIS, page IV-53). For these reasons, Alternative 1A, the original Forest Plan, does not maximize net public benefits.

### *Alternative 1B*

Alternative 1B was analyzed and presented in the Draft SEIS. Analysis conducted since the Draft, revealed that the ASQ in Alternative 1B is not feasible on a sustained basis while meeting Forest Plan standards & guidelines. The Alternative was, therefore, not considered in detail in the Final SEIS.

### *Alternative 1C*

Alternative 1C was formulated to address the issue of timber harvest benefits and provided the most economically efficient timber management program of all the alternatives considered. The purpose of timber harvesting under Alternative 1C is to provide wood fiber to support local industry to the level where timber program costs equal the timber program benefits. The ASQ for the alternative is 196 million board feet of sawtimber with a suited land base of 287,882 acres. There is no POL volume included in the ASQ. The alternative is described in more detail on pages II-14 to II-15 of the FSEIS.

I did not select Alternative 1C due to the lack of an aspen component and the reduction in the conifer component in the ASQ. The absence of an aspen component would result in the closure of the Louisiana-Pacific mill and, subsequently, the loss of 353 jobs and \$5.9 million in personal income (FSEIS, page IV-53). The reduction in the conifer component could potentially create similar problems in the sawtimber industry with the loss of almost 70 jobs. For these reasons, Alternative 1C does not maximize net public benefits.

### *Alternative 1D*

Alternative 1D emphasizes amenity values by promoting non-commodity goods and services. The alternative addresses the roadless area and scenic area issues by excluding all lands in these areas from the suited land base. The ASQ is 190 MMBF with a suited land base of 200,203 acres. The ASQ is composed of mostly conifer sawtimber with an insignificant amount of POL.

I did not select Alternative 1D due to the small aspen component and the reduction in the conifer component in the ASQ. The small amount of aspen offered would be insufficient to maintain the Louisiana-Pacific mill and result in the loss of jobs and income as described under Alternatives 1A and 1C. The reduced conifer component would have a similar effect with the loss of 121 jobs (FSEIS, page IV-53). For these reasons, Alternative 1D does not maximize net public benefits.

### *Alternative 1E*

Alternative 1E was the Preferred Alternative in the Proposed Amendment published in 1989 and was developed through a series of meetings with the public. The Alternative addresses the issue of economic dependency and diversity by providing an ASQ which exceeds the estimate of current demand in the FSEIS. The ASQ is 614 MMBF with a suited land base of 881,123 acres.

I did not select Alternative 1E because it would require timber harvesting within certain areas of the Forest for which a large sector of the public has expressed concern. The alternative would also require entry into two sensitive roadless areas, Tabeguache and Roubideau, thereby, reducing future options for evaluating these areas for potential wilderness designation during the Forest Plan revision process. The alternative also has the lowest Present Net Value and the most financially inefficient timber management program, losing about \$1.8 million per year, of all the alternatives considered. The negative effect on water quality under Alternative 1E is greater due to timber harvesting on steep slopes (FSEIS, IV-29). For these reasons, Alternative 1E does not maximize net public benefits.

*Alternative 1F*

In the 1989 DSEIS, the determination of financially efficient lands was based upon the costs and revenues used in the Draft's analysis. In response to public comments, cost and revenue assumptions have been updated and corrected. As a result of these changes, based on historic timber price levels, the analysis concluded that none of the suited timber lands on the Forest are financially efficient for timber management. Considering Alternative 1F in detail in the FSEIS would mean that elimination of the timber management program on the Forest was a feasible alternative.

Alternative 1F was not considered in detail because eliminating the timber management program on the Forest is not a feasible option. Eliminating the timber management program on the Forest would be inconsistent with several laws including the Organic Act, the Resources Planning Act, the National Forest Management Act and others. ". . .To furnish a continuous supply of timber..." is one of the purposes for which the Forest Reserves, now the National Forest System, were established. Timber is one of the multiple uses for which the National Forest's are to be managed according to the Multiple-Use Sustained Yield Act of 1964 (MUSYA). A financially efficient timber management program is not a requirement of any law or policy affecting the Forest Service. In fact, the MUSYA states that the combination of uses need not be the one which produces the greatest economic return.

The laws governing the National Forests provide for timber management. There are local industries that depend on the timber resources of the Forest. The jobs and income associated with the timber resource of the Forest are important to the fragile economy in several small communities within the area. To eliminate this supply entirely, and thereby, eliminate these jobs entirely is simply an unacceptable choice.

The lack of a timber management program would also eliminate an important tool used to manage the National Forest for a number of other benefits described throughout this ROD.

For these reasons, it is not feasible, nor would it be good public policy, to eliminate the timber management program altogether just because it is financially inefficient in the current market conditions.

*Alternative 1G*

Alternative 1G is the alternative selected as the Amended Forest Plan. The details of this alternative are described in the FSEIS, pages II-20 to II-21, and in the Amended Forest Plan. The reasons for selecting the alternative are discussed in Section IV of this ROD.

*Alternative 1H*

Alternative 1H would provide all of the Louisiana-Pacific mill's aspen supply needs from the Forest. The ASQ is 458 MMBF with a suited land base of 621,966 acres. The ASQ is composed of 210 MMBF of conifer and 248 MMBF of aspen. Approximately 2,000 acres of aspen would be clearcut annually to achieve this output level.

The alternative responds to the issue of economic dependency and diversity by insuring a continuous supply of timber for both the conifer and aspen wood processing industries. There would be no question of excessive hauling distances from other National Forests for a portion of the aspen volume. The alternative was also considered in response to comments received from the Governor of the State of Colorado who offered the alternative as a compromise between the Proposed Amendment and the original Forest Plan.



I did not select Alternative 1H due to the increased cost to access and offer the additional aspen volume and the effect that would have on the financial efficiency of the timber management program. The alternative would lose about \$1.25 million per year on the timber management program. There would be an additional 300 acres of roadless areas entered annually as compared to the selected alternative. Since the additional volume needed to meet the expressed needs of the Louisiana-Pacific mill can be offered from the White River National Forest, in accessible areas, there is no need to impact the roadless areas on the Grand Mesa, Uncompahgre, and Gunnison National Forests. For these reasons, Alternative 1H does not maximize net public benefits and was not the selected alternative.

#### **Alternatives with a Higher Present Net Value than the Selected Alternative**

Present net value (PNV) is used to measure the financial and economic efficiency of each alternative. PNV is a quantitative measure which is calculated using priced benefits minus the costs for the 150-year planning period and discounted to the present (reference Glossary, Chapter II, FSEIS). PNV does not measure the qualitative benefits and costs of the effects of each alternative on ecosystem diversity, wildlife habitat, water quality, and scenic quality. Therefore, PNV is not the only criterion I used in deciding to approve this significant amendment to the Forest Plan.

The selected alternative, 1G, has the third highest PNV of the six alternatives considered. Alternative 1C and 1A have a higher PNV as shown in the FSEIS, page II-45, Table II-8. In the section above, the reasons why these alternatives were not selected over Alternative 1G are explained.

#### **Environmentally Preferred Alternative**

The environmentally preferred alternative is the alternative causing the least impact to the biological and physical environment and the alternative which best protects, preserves, and enhances historic, cultural, and natural resources (CEQ, FR18028, 3/23/81). A detailed discussion of the environmental effects for each alternative is included in Chapter IV of the FSEIS.

Alternatives 1C and 1D are the environmentally preferred alternatives. These alternatives schedule less timber harvest and road building, retain more acres in an unroaded and undeveloped condition, and schedule less ground disturbing activity during the life of the Plan than the other alternatives. Alternatives 1C and 1D would result in the least disturbance to the physical and biological environment.

#### **Use of the Supplement to the Original Forest Plan EIS**

In making these decisions, the information in the Supplement to the Forest Plan Environmental Impact Statement was used extensively. The alternatives considered were encompassed by the range of alternatives discussed in the Supplement. The environmental effects of the alternatives are described in the EIS and were used in making the decisions.

#### **Compliance and Compatibility**

The Forest Supervisor developed the Amended Plan in compliance with the NFMA and NEPA. The Amended Plan is in compliance with the Endangered Species Act as there will be no adverse effects on any threatened or endangered species (FSEIS, pages IV-48/49). The National Fish and Wildlife Service has reviewed the documents and notified us that consultation is not necessary or appropriate (FSEIS, page VI-71).

No significant adverse effects will occur to cultural resources, therefore, the Amended Plan is in compliance with the National Historic Preservation Act. Archeologists will conduct inventories prior to any surface disturbance and all sites will be protected through mitigation or avoidance (FSEIS, page III-11).

All water and air quality standards will be met in the Amended Forest Plan.

The Forest developed the Amended Forest Plan with the involvement, coordination, and comments from other Federal, State, and local government agencies including the U S. Fish and Wildlife Service, U S Environmental Protection Agency, Colorado Division of Wildlife, Colorado Department of Natural Resources, and all the affected counties. The Amended Plan is compatible with and complementary to the goals of other agencies and Native American tribes. Coordination with all of the groups, agencies and individuals involved in the development of the Amendment will continue as projects are implemented.

## VII. IMPLEMENTATION, MONITORING, AND EVALUATION

### Implementation

The Amended Forest Plan provides direction in the form of goals and objectives, standards and guidelines, monitoring requirements, and a schedule of possible projects. The Amended Forest Plan will be implemented through identification, selection, and scheduling of projects to meet the management goals and objectives. The Amended Forest Plan does not include decisions for individual projects.

Forest Interdisciplinary teams develop projects through an integrated resource management approach, using public involvement throughout the process. Each proposed project is subject to site-specific analysis in compliance with NEPA. Considerations revealed through that process may result in a decision not to proceed with a proposed project, even though the project may be permissible under the Amended Forest Plan. All project level NEPA documents may be tiered to the FSEIS for the Amended Forest Plan, pursuant to 40 CFR 1508.28.

Project schedules will be available for review at the Ranger District Offices and Supervisor's Office. In addition, the Forest will, twice each year, send out a list of proposed projects to be analyzed in the NEPA process in the next 6 months to interested individuals as a part of project scoping. Schedules of possible projects will routinely change as projects are implemented or are removed from the listings for other reasons and as new projects take their place. Adjustments to the schedules may be made based on results of monitoring, budgets, and unforeseen events.

All timber sales offered after issuance of the Amended Forest Plan will be in compliance with direction contained in the Amended Forest Plan. Timber sales now under contract will be administered under provision of the existing contracts.

All outputs in the Amended Forest Plan can be accomplished from a physical, biological, and legal perspective, however, the Amended Forest Plan does not guarantee that specific output levels will be met. Outputs and activities in individual years may be significantly different from those shown in the Amended Forest Plan, Table III-1, depending on final budgets, new information derived from updated inventories and monitoring, changes in resource demand, and environmental effects of specific projects.

The ASQ is defined as the quantity of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified in the Plan, in this case 7 years. The intent of the Forest is to offer the full amount of the ASQ during the next 7 years of implementation. In this case, the Forest considers the ASQ

as both an upper limit and a commitment to provide the full amount of volume within each component of the ASQ in order to meet the needs of the local wood processing industries

Insect and disease (I&D) outbreaks, windthrow, and fire cannot be predicted with sufficient accuracy to allow long-term projection and planning of treatment needs. Timber sales which control and/or salvage damage from such events are not scheduled in the alternatives. The potential for commercial timber harvest as a tool for achieving other resource objectives will be evaluated at the project level against alternative treatment options when and where the need for insect and disease suppression and other salvage activities arise. If commercial harvest or salvage are used, it is usually in addition to the planned ASQ unless the magnitude and location of treatments affect the basis for the ASQ. The conifer portion of the ASQ applies to green sawtimber.

Certain areas of the Forest were not designated suited for timber production in the Amended Plan due to negative public reaction to proposed timber harvesting in these areas. While these areas will not be scheduled for timber harvesting during implementation of the Plan in order to produce the ASQ, trees may be cut in order to salvage timber that has been damaged by insects, disease, windthrow, or fire. Timber may also be harvested to protect other multiple-use values in the area. Timber harvesting under these circumstances is provided for in NFMA and the planning regulations at 36 CFR Part 219.27(c)(1).

The Amended Forest Plan will be implemented 30 days after the Notice of Availability of the Amended Forest Plan, Final Supplemental EIS, and Record of Decision appears in the Federal Register.

### **Mitigation**

Mitigation measures are an integral part of the standards and guidelines and management area direction. The management standards were developed through an interdisciplinary effort and contain measures necessary to mitigate or eliminate any long-term adverse environmental effects. Additional mitigation measures may be developed and implemented at the project level consistent with the measures identified in Chapter IV of the FSEIS.

Mitigation measures will minimize or eliminate potential conflicts or adverse effects of implementation. Mitigation measures have been developed through interdisciplinary efforts and incorporated into the Amended Forest Plan at different levels in several different ways

The Standards and Guidelines and Management Area Direction in the Amended Forest Plan, Chapter III are a fundamental and integral part of these measures, and as such, they are a basic and essential part of the Amended Forest Plan.

National Forest Management Act requirements were incorporated into the planning process and are reflected in the land use allocations and Standards and Guidelines

### **Monitoring and Evaluation**

The monitoring and evaluation program is the management control system for the Forest Plan and provides information on the progress and results of implementation. We will evaluate and use this information as feedback to the Forest planning process

Chapter IV of the Amended Forest Plan outlines the specific process that will be used for monitoring. The overall objective of monitoring is to ensure that Standards and Guidelines and Management Area direction are being correctly applied and are producing the desired results. The Forest will use information gathered

during monitoring to update inventories, resource demand estimates, and to improve mitigation measures. Monitoring results will be evaluated routinely to assess the need for amending the Forest Plan.

Standards and Guidelines described in Chapter III of the Amended Forest Plan will not be compromised in order to achieve annual targets or projected outputs. If projected outputs cannot be achieved without breaching Standards and Guidelines, the Forest Supervisor will evaluate the need to amend the plan. Three types of monitoring and evaluation will be conducted.

*Implementation Monitoring* - determines if plans, prescriptions, projects, and activities are implemented and designed in compliance with Forest Plan objectives and Standards and Guidelines.

*Effectiveness Monitoring* - determines if plans, prescriptions, projects, and activities are effective in meeting management direction, objectives, and the Standards and Guidelines.

*Validation Monitoring* - determines if the initial data, assumptions, and coefficients used in development of the Plan are correct; and if there is a better way to meet forest planning regulations, policies, goals, and objectives.

Evaluation of the results of the site-specific monitoring program will be documented in an annual evaluation by the Forest Interdisciplinary Team. Based on the evaluation any need for further action is recommended to the Forest Supervisor.

Monitoring and evaluation will provide information to:

- Compare planned versus applied management standards and guidelines to determine if objectives are achieved [36 CRR 219.12(k)].
- Quantitatively compare planned versus actual outputs and services [36 CFR 219.12 (k)(1)].
- Measure effects of prescriptions, including significant changes in land productivity [36 CFR 219.12 (k)(2)].
- Determine planned costs versus actual costs associated with carrying out prescriptions [36 CFR 219.12 (k)(3)].
- Evaluate effects of National Forest management on adjacent land, resources, and communities [36 CFR 219.7(f)].
- Identify research needs to support or improve National Forest management [36 CFR 219.28].
- Determine if lands are adequately restocked [36 CFR 219.12 (k)(5)(i)].
- Evaluate, at least every 10 years, if lands designated as not suited for timber production should remain in that designation [36 CFR 219.12 (k)(5)(ii)].
- Determine whether maximum size limits for harvest areas should be continued [36 CFR 219.12 (k)(5)(iii)].
- Ensure that destructive insects and disease organisms do not increase to potentially damaging levels following management activities [36 CFR 219.12 (k)(5)(iv)]. ;

## VIII. APPEAL RIGHTS AND APPROVAL

This decision is subject to appeal pursuant to 36 CFR Part 217. Written notice of appeal must be filed within 90 days of the date of public notice of this decision. The appeal must be filed with the Reviewing Officer:

F. Dale Robertson, Chief  
USDA Forest Service  
P.O. Box 96090  
Washington, DC 20090-6090

The notice of appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed (36 CFR 217.9). The appellant is required to furnish two copies of the appeal to the Reviewing Officer.

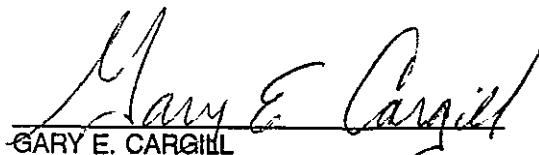
For a period not to exceed 20 days following the filing of a notice of appeal, the Reviewing Officer shall accept requests to intervene in the appeal from any interested or potentially affected person or organization [36 CFR 217.12(a)].

Decisions on site-specific projects are not made in this document. Final decisions on any proposed projects are made after site-specific analysis and documentation in compliance with NEPA and are appealable under 36 CFR Part 217.3.

I encourage anyone concerned about the Amended Plan or Final Supplemental Environmental Impact Statement to contact the Forest Supervisor in Delta, Colorado, (303) 874-7691, before submitting an appeal. It may be possible to resolve the concern or misunderstanding in a less formal manner.

If you would like more information about the Amended Forest Plan or FSEIS, review planning records, or discuss the process, please contact:

Robert Storch  
Grand Mesa, Uncompahgre and Gunnison National Forests  
2250 Highway 50  
Delta, Colorado 81416  
303-874-7691

  
GARY E. CARGILL  
Regional Forester - USDA Forest Service  
Rocky Mountain Region  
11177 West 8th Avenue, P.O. Box 25127  
Lakewood, CO 80225

9/23/91  
Date